REMARKS

After entry of the amendments, claims 1, 3-7, 9-15, 17-21, 23-27, and 30 will be pending, in this application. The Office has rejected claims 1-30 under 35 USC § 112, second paragraph, as being indefinite. Claims 1-27 and 30 have been rejected under 35 USC § 103(a) as being unpatentable over Friske et al. (U.S. Pat. No. 6,070,170; hereinafter Friske) in view of Cejtin et al. (U.S. Pat. No. 5,745,703; hereinafter Cejtin). Finally, the Office has rejected claims 28 and 29 under 35 USC § 102(e) as being anticipated by Friske. This is a non-final Office action and is responsive to Applicant's Appeal Brief filed on or before May 3, 2006. The Office has reopened prosecution in view of the appeal brief and provided new grounds for rejection.

112 Second Paragraph Rejection

The Office objected to the phrase "at some point" asserting that it rendered the claim indefinite "because it is unclear whether the limitations following the phrase are part of the claimed invention." Applicant has amended the claims that contained this phrase to address the rejection.

Amendments to the Claims

Applicant requests that the above amendments to the claims be entered into this application. No new subject matter is being entered. Claims 2, 8, 16, 22, 28, and 29 are being canceled and the limitations contained in these claims have been moved to independent claims.

103(a) Rejection of Claims 1, 7, 15, 21, and 30

Friske does not show or suggest "placing an initial lock on the target data to prevent concurrent execution of at least one operation on the target data," as required by Applicant. Friske teaches the use of a non-blocking drain or lock at the beginning of the reorganization process. The non-blocking drain is a special execution control mechanism that allows the reorganization process to be placed in an execution queue until previous processes complete and release their locks on the data. However, Friske's non-blocking

drain does not prevent other processes from executing operations on the database while the reorganization process is still executing. The non-blocking drain simply provides a execution queuing function to the reorganization process. Friske states, "processes requesting database access after the reorganization process, is [sic] not impeded by the non-blocking drain." (Col. 3, lines 33-35.) Friske's non-blocking drain does not prevent concurrent execution of at least one operation on the target data as required by Applicant. At least this element of Applicant's claimed invention is missing from Friske.

Friske does not show or suggest "executing the operation in the database on the set of target data," as required by Applicant. Instead, Friske teaches that the operation takes place outside the database. Friske states:

> "A data set subject to reorganization (target data set), such as a set of pages 308, is 'unloaded' from the logical database 302. In the preferred embodiment, unloading a data set refers to copying a data set to the flat files 124 that contains a copy of the target data records, and may be used in subsequent steps as a primary source of input for recreating the database." (Col. 6, line 5-10.)

Figure 1 distinctly shows that the flat files 124 are separate from the database 122. In fact, Friske goes on to state that the flat files 124 can be stored on a storage unit 108 in a client computer. These locations are clearly outside of the database. Additionally, Friske teaches that "the unloaded target data set is reorganized by the processor 106 …." (Col. 6, lines 25-26.) Processor 106 is depicted in Fig. 1 and described in the specification as a client processor that resides in the client computer, separate from the "server computer" and databases also shown in Fig. 1. Here Friske is clearly teaching that the execution of the operation is performed external to the database by a processor located in a client computer. Additionally, the term "unloaded" when used in the context of a database means to remove data from the database. Friske supports this definition by stating the unloaded data can be used later as input data to recreate the database. Therefore, before data can be used as input to the database, it must first reside outside or external to the database. Finally, Friske defines the term "flat files" as "text files" which is in keeping with the ordinary meaning of the term flat file. A flat file does not have the same properties, features, and abilities that one of ordinary skill would expect to find in a database. Again, the use of a flat file is in keeping with the fact that the data is outside of the database and stored in simple text files. It is clear from the abundance of evidence

that the reorganization operation taught by Friske is performed external to the database and contrary to the required elements of Applicant's claimed invention. Therefore, at least this element is missing from Friske.

The Office states that "Friske does not explicitly indicate claimed (sic) placing a lock on the target data to prevent concurrent execution of other operations on the target data." (Office Action mailed July 17, 206, page 5, first paragraph.) For this limitation, the Office looks to Cejtin. But Cejtin only teaches "a lock to prevent other messages from being sent to the target by threads concurrently executing on its address space while the transfer is underway." (Col. 10, lines 27-29.) Cejtin fails to show or suggest a "lock on the target data to prevent concurrent execution of at least one operation on the target data," as required by Applicant. Furthermore, Cejtin teachings relate to an extension to "Scheme 48," which is a dialect of a programming language called LISP used mostly to support artificial intelligent applications. The locking described by Cejtin does not occur inside a database nor is it performed by a database operation. Therefore, at least this element is missing from Cejtin and as shown above, it is also missing from Friske.

Additionally, the Office has failed to provide a reasonable motivation or suggestion to combine Friske and Cejtin. Friske teaches a method to reorganized data in a database and Cejtin teaches extensions to a dialect of a programming language called Lisp. In Friske, the method to reorganize the database allows substantially uninterrupted access to the database. (See col. 1, lines 28-30.) Cejtin teaches improvements to a programming language to better handle interprocess communications. The two references are not solving the same or even similar problems. The Office cites Cejtin's teaching of "type systems and optimizers for Scheme that catch many potential type errors statically in order to significantly alleviate debugging overheads that would otherwise be incurred" as a motivation to combine Cejtin with Friske. (Page 5, last paragraph.) Applicant disagrees. Friske never discusses debugging of any kind or the need to improve debugging. Furthermore, the Scheme 48 described by Cejtin is not a database scheme but is instead the proper name for a special purpose dialect of the Lisp programming language invented by Guy Lewis Steele of MIT. The debugging taught by Cejtin and cited by the Office refers to debugging program code, not databases and

Scheme 48 does not relate to database schemes. Therefore, the Office has failed to provide a proper motivation or suggestion to combine the references.

A *prima fascia* case of obviousness cannot be made because the prior art fails to show or suggest all the elements of Applicant's claimed invention and the Office has failed to provide a proper motivation or suggestion to combine the references. The rejection is therefore improper and the claims are allowable over the prior art.

Rejection of the Dependent Claims

The dependent claims are allowable for at least the same reasons presented above for the independent claims.

CONCLUSION

Applicant asks that the Office reconsider this application and allow all pending claims. Please charge any fees that might be due, excluding the issue fee, to deposit account 14-0225.

Respectfully submitted,

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(Electronically Submitted)

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